

Date: Sat, 6 Aug 94 04:30:30 PDT
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #216
To: Ham-Space

Ham-Space Digest Sat, 6 Aug 94 Volume 94 : Issue 216

Today's Topics:

GPS Freq and antenna questions
Info request
Oscar 10 questions
Request for info.

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 4 Aug 1994 18:50:22 GMT
From: ihnp4.ucsd.edu!ucsnews!newshub.sdsu.edu!nic-nac.CSU.net!usc!math.ohio-
state.edu!howland.reston.ans.net!noc.near.net!ctron-news.ctron.com!dur-
news.ctron.com!gdelong@network.ucsd.edu
Subject: GPS Freq and antenna questions
To: ham-space@ucsd.edu

I broke down and bought a hand held GPS unit (GARMIN GPS-45)
and am interested in setting it up for land mobile in the
car.

The manufacturer sells an external, temp mount antenna for
more than a few dollars, so I plan to try to throw something
together.

The questions: What freq range(s) do the GPS transmitters use?
and, is there anything "special" in the antennas made for
use with this units? (circular pol?)

Thanks for any help.

--Gary
N1BIP

Date: 5 Aug 1994 19:03:18 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!
europa.eng.gtefsd.com!darwin.sura.net!huelen!manutara!itata.disca.utfsm.cl!
rod@network.ucsd.edu
Subject: Info request
To: ham-space@ucsd.edu

'lo all...
I guess this *must* be a FAQ... but I'm still looking for some
info and nothing have happened.
I'm just starting withn amateur-satellites and I'm looking for some
info to know what I have to do to work properly.
I've been hearing doved for some days... but now I want something
new. Anything will be very usefull so if you have some info please
e-mail me or post it in news.
Thanks in advance....
73 & DX from Chile....

Rodrigo E. Rodriguez.
CE 6 NUG
rod@itata.disca.utfsm.cl
rrodrigu@loa.disca.utfsm.cl

Date: Fri, 5 Aug 1994 19:29:06 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!gatech!newsxfer.itd.umich.edu!
nntp.cs.ubc.ca!unixg.ubc.ca!quartz.ucla.alberta.ca!gov.nt.ca!
ve8ev@network.ucsd.edu
Subject: Oscar 10 questions
To: ham-space@ucsd.edu

In article <9408021550.ZM27670@SALCIUS2> Wayne_Estes@csg.mot.com (Wayne_Estes)
writes:

>Question #1:

>

>The Satellite Experimenter's Handbook says not to use Oscar 10 if the beason
>doesn't transmit a pure tone. On Sunday night the beacon sounded very
>distorted. As an experiment I tried sending a CQ in the passband and could

>hear myself on the downlink loud and clear. (nobody else was on the
>satellite)
>
>Question #1:
>Is it really true that I should avoid transmitting to Oscar 10 when the
>beacon does not transmit a pure tone?
>
>
>Instant Track indicates that the Oscar 10 antennas are almost always severely
>off-pointed from earth (more than 90 degrees most of the time)
>
>Question #2:
>Are the Oscar 10 antennas omnidirectional enough to allow reliable contacts
>when the offpointing angle is large?
>
> - Wayne Estes WD5FFH wayne@csg.mot.com
>
>--
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>Libertyville, IL 60048-1286
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When the beacon on AO-10 starts FM'ing it usually indicates that the system voltage is getting lower. In order to conserve the batteries it is a good idea not to use the transponder. The fact that most people observe this and that AO-10 is usually pretty quiet (few users) has contributed to its continued operation. How it will survive between the crash of AO-13 and the launch of the new P3D satellite remains to be seen. I imagine it will see a lot of use as the only high orbit bird available during this time.

Since the computer on AO-10 succumbed to radiation a few years ago, there is no way for ground controllers to change the spacecraft's orientation. As the orientation slowly drifts the pointing angle as well as the percentage of sun striking the solar panels also changes. This is why the strength of the downlink varies considerably month to month depending on the antenna direction and the amount of power available to charge the batteries. It is possible, based on the last known attitude of AO-10 to calculate the current and future attitudes. Currently the ALON/ALAT are approx. 218/-15 with an illumination of 87% (info courtesy G3RUH). The illumination will decline over the next two months, down to 11% in October. By January it will be back up to almost 100% and will continue on this 6 month cycle. The ALON is slowly decreasing (201 in Jan) and the ALAT is slowly

increasing (-19 in Jan).

Perhaps NASA will donate a shuttle mission to replace the computer with a newer radiation-hardened unit? <g>

73

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John Boudreau VE8EV      INTERNET: ve8ev@amsat.org
Inuvik, NWT, CANADA      PACKET: VE8EV@KL7GNG.#NAK.AK.USA.NA
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Date: 5 Aug 1994 13:13:45 GMT
From: ihnp4.ucsd.edu!news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!
spool.mu.edu!darwin.sura.net!huelen!manutara!itata.disca.utfsm.cl!
rod@network.ucsd.edu
Subject: Request for info.
To: ham-space@ucsd.edu
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End of Ham-Space Digest V94 #216
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